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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,660	06/28/2000	Choung Hyep Kim	SEC.736	6244

7590 10/08/2003

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EXAMINER
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YEVSIKOV, VICTOR V

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/605,660

Applicant(s)

KIM ET AL.

Examiner

Victor V Yevsikov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Examiners amendment*

Applicant's election without traverse of claims 1-5 in Paper No. 6 is  
results in claims 1-5  
acknowledged and withdrawing from consideration.

Furthermore, the restriction is hereby deemed final.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
Strodtbeck et al, US 6,403,933 B1 in view of Kyung et al. (US 5,778,969).

With respect to claim 6 Strodtbeck teaches a method of temperature-conditioning  
a wafer comprising

determining a desired distribution of surface temperatures across a wafer to  
be produced by a temperature-conditioning process;

placing a wafer in position above the upper surface of a heat transfer plate of a  
temperature-conditioning apparatus, which heat transfer plate produces heat used in  
carrying out the temperature-conditioning process;

while the wafer is spaced above the upper surface of the heat transfer plate,

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transferring heat between the heat transfer plate and the wafer to temperature condition the wafer; and

before the wafer is temperature-conditioned, determining a spacing of the wafer from the upper surface of the heat transfer plate relative to the upper surface of the heat transfer plate tending to produce the desired distribution of surface temperatures across the wafer when the wafer is heat-treated, and wherein the placing of the wafer in position comprises setting the wafer above the heat transfer plate with the spacing relative to the upper surface of the heat transfer plate.

Also, Strodbeck (claims 7-9) describe the method wherein the temperature-conditioning a wafer determining of the desired distribution of surface temperatures comprises measuring temperatures at different locations across the surface of the wafer after the wafer is temperature-conditioned in a different temperature conditioning apparatus, and selecting as the desired distribution of surface temperatures one which corresponds to the measured temperatures; and

wherein the placing of the wafer in position comprises setting the wafer atop spacers projecting above the upper surface of the heat transfer plate, and adjusting the spacers to vary the amounts by which they project above the upper surface to ones necessary for producing the desired distribution of surface temperatures while the wafer is supported by the spacers above the heat transfer plate as the wafer is being heat-treated.

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Strodtbeck discloses the features outlined above, but does not show exactly a method, wherein the placing of the wafer in position comprises setting the wafer above the heat transfer plate with the inclination relative to the upper surface of the heat transfer plate.

Reference: figs. 3-6 with corresponding text; cols. 8-9, lines 33-54

However, Kyung describes the method wherein the placing of the wafer in position comprises setting the wafer above the heat transfer plate with the inclination relative to the upper surface of the heat transfer plate (fig.2; col.4, lines 57-64).

It would have been obvious to those skilled in the art to use the method wherein setting the wafer above the heat transfer plate with the inclination relative to the upper surface of the heat transfer plate which commonly used as taught by Strodtbeck Kyung for provides an effective process for temperature conditioning of wafer.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Yevsikov whose telephone number is 703.305.0758. The examiner can normally be reached on M-F (off every other Monday) 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 703.308.1323. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.3432 for regular communications and 703.305.3432 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1782.

October 1, 2003

Victor Yevsikov



MATTHEW SMITH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800